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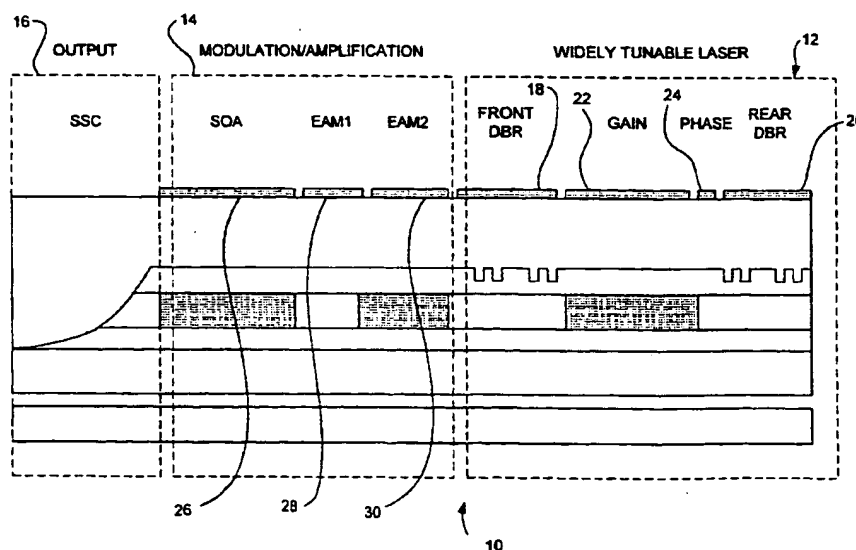
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(54) Title: METHOD OF CONVERTING AN OPTICAL WAVELENGTH WITH AN OPTO-ELECTRONIC LASER WITH INTEGRATED MODULATOR



(57) Abstract: A method of converting an optical wavelength includes providing a wavelength converter assembly with a photodetector and a laser with a common epitaxial structure. The epitaxial structure has areas of differing bandgap. An optical input having a first wavelength at the wavelength converter assembly is absorbed. A first electrical signal is generated from the photodetector in response to the optical input. The first electrical signal is conditioned to produce a conditioned first electrical signal. A second electrical signal is generated from the conditioned first electrical signal. A laser output is generated from a gain medium of the laser at a second wavelength in response to the second electrical signal.



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LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
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A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	BAR-CHAIM N ET AL: "MONOLITHIC OPTOELECTRONIC INTEGRATION OF A GAALAS LASER, A FIELD EFFECT TRANSISTOR AND A PHOTODIODE" APPLIED PHYSICS LETTERS, US, AMERICAN INSTITUTE OF PHYSICS, NEW YORK, vol. 44, no. 10, 15 May 1984 (1984-05-15), pages 941-943, XP002016763 ISSN: 0003-6951 page 941, column 2, line 10 -page 942, column 2, line 2; figures 1,2 ---	1-4,9, 19-24, 28,32,33
X	US 5 742 045 A (KIMMET JAMES S ET AL) 21 April 1998 (1998-04-21) the whole document --- -/--	1,14,15, 19-21, 32,33

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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G document member of the same patent family

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A	KIM B -S ET AL: "DYNAMIC ANALYSIS OF WIDELY TUNABLE LASER DIODES INTEGRATED WITH SAMPLED- AND CHIRPED-GRATING DISTRIBUTED BRAGG REFLECTORS AND AN ELECTROABSORPTION MODULATOR" IEICE TRANSACTIONS ON ELECTRONICS, INSTITUTE OF ELECTRONICS INFORMATION AND COMM. ENG. TOKYO, JP, vol. E81-C, no. 8, August 1998 (1998-08), pages 1342-1349, XP000848540 ISSN: 0916-8524 the whole document ---	1,19,125
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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